ARKANSAS STATE BOARD OF HEALTH

Office of Emergency Medical Services
And Trauma Systems

RULES AND REGULATIONS

FOR

TRAUMA SYSTEMS

Promulgated Under the Authority of Act 559, 1993

Effective December 5, 2002

ARKANSAS DEPARTMENT OF HEALTH
Dr. Fay Boozman, Director

TABLE OF CONTENTS

- ❑ **AUTHORITY** 3
- **I. DEFINITIONS** 3
- **II. ADMINISTRATIVE** 12
- **III. PUBLIC INFORMATION AND EDUCATION** 12
- **IV. PREHOSPITAL TRIAGE AND TRANSPORT** 13
- **V. TRIAGE REQUIREMENTS FOR TRAUMA FACILITIES** 17
- **VI. STANDARDS FOR TRAUMA FACILITY DESIGNATION** 25
- **VII. TRAUMA FACILITY RESOURCE STANDARDS** 30
- **VIII. PEDIATRIC TRAUMA FACILITY STANDARDS** 39
- **IX. FEES** 40
- **X. TRAUMA FACILITY SITE SURVEY TEAM** 40
- **XI. TRAUMA SERVICE REGIONS (TSR'S)** 41
- **XII. REHABILITATION FACILITIES** 44
- **XIII. STATE TRAUMA REGISTRY** 44
- **XIV. SEVERABILITY** 45
- **XV. REPEAL** 45

Authority

The following Rules and Regulations pertaining to the comprehensive, statewide, Trauma System are duly adopted and promulgated by the Arkansas State Board of Health pursuant to the authority expressly conferred by Act 559 of 1993 (The Trauma System Act), and the laws of the State of Arkansas including, without limitation, Act 96 of 1913 (Arkansas Statutes, 1947, Section 82-110).

SECTION I. DEFINITIONS

For the purpose of these regulations the following terms are defined:

NOTE: All definitions refer to the "adult trauma patient" unless otherwise identified.

AACN: American Association of Critical Care Nurses

AANN: American Association of Neuroscience Nurses

ACEP: American College of Emergency Physicians

ACGME: Accreditation Council for Graduate Medical Education

ACLS-certified: Individuals certified by the American Heart Association in Advanced Cardiac Life Support

ACS COT: American College of Surgeons Committee on Trauma

Act: Act 559, The Trauma System Act of 1993.

Adult: Age classification 12 years old and above.

AIS: Abbreviated Injury Scale: An anatomic severity scoring system

ALS: Advanced Life Support, including techniques of resuscitation, such as intubation, intravenous access, and cardiac monitoring

Alternate Criteria: Those criteria for inclusion in the trauma service, which are offered as an alternative to Board Certification. The non-board-certified surgeon must have completed an approved surgical residency program. The surgeon must be licensed to practice medicine and approved for surgical privileges by the hospital's credentialing committee. The surgeon must meet all criteria established by the trauma director to serve on the trauma team. The surgeon must have experience in caring for trauma patients which must be tracked by the performance improvement (PI) program. The Trauma director must attest to the surgeon's experience and quality of patient care as part of the recurring granting of trauma team privileges consistent with the hospital's policy. This individual is expected to meet all other qualifications for members of the trauma team.

APLS: Advanced Pediatric Life Support Course jointly developed and sponsored by the American College of Emergency Physicians and American Academy of Pediatrics—covers the knowledge and skills necessary for the initial management of pediatric emergencies, including trauma.

Asystole: Absence of spontaneous cardiac activity.

ATLS Course: Advanced Trauma Life Support Course of the American College of Surgeons

BLS: Basic Life Support techniques of resuscitation, including simple airway maneuvers and administration of oxygen.

Basic (Level IV) Facility: Medical facility that provides screening and definitive care or stabilization and transfer of severely injured patients in remote areas where no alternative care is available, or stabilization while arranging for transfer to a Level I, Level II, or Level III facility that can provide further definitive surgical care.

Board-certified: Physicians certified by appropriate specialty boards recognized by the American Board of Medical Specialties

Burn patient referral: In general, patients for referral are so-called "major burns," described as burns involving 20 percent or greater body surface area (BSA) in an adult, or 10 percent or greater BSA in a child; additionally, burns of lesser BSA in patients with concomitant serious disease—for example, cirrhosis, diabetes, and cardiac disease—should be considered for transfer, as should special problems, such as inhalational injuries and burns involving hands, feet, face, and genitalia.

Bypass (Divert Status): Transport of an EMS patient past a normally used EMS receiving facility for the purpose of accessing more readily available or appropriate medical care.

CCRN: Critical Care Registered Nurse certification from the American Association of Critical Care Nurses

CDC: Centers for Disease Control and Prevention in Atlanta, GA—a Federal agency committed to epidemiological surveillance, control of disease processes, particularly those secondary to infection or trauma, and prevention

Certificate of Special Competency or Added Qualifications: Recognition of specialized education in selected areas of care and acknowledged by the American Board of Medical Specialties

Child: Age class from one year old to 12 years old.

Communication system: A collection of individual communication networks, a transmission system, relay stations, and control and base stations capable of interconnection and interoperation that are designed to form an integral whole. The individual components must serve a common purpose, be technically compatible, employ common procedures, respond to control, and operate in unison.

Comorbidity: Significant cardiac, respiratory, or metabolic diseases that stimulate the triage of injured patients to trauma centers.

Comprehensive (Level I) Facility: Regional resource trauma center that has the capability of providing leadership and total care for every aspect of injury from prevention through rehabilitation.

Continuing Medical Education (CME): Defined educational activities for practicing physicians, often resulting in approved credit hours from the AMA, state medical society, a medical school, or hospital.

Credentialing: Approval of physician as a member of the trauma team, based on a review of the individual's training and experience by the trauma service director and the appropriate service chief.

Demonstrated commitment: Provision of evidence (visible and written) that clearly demonstrates an institution-wide commitment to trauma care.

Department: The Arkansas Department of Health

Designation: The process by which a hospital is identified by the Department as an appropriate facility to receive traumatically injured patients.

Desirable characteristic: A component of the trauma care facility standards whose presence or availability is encouraged but not required for designation.

Disaster: Sudden event with a variable mixture of injury to or sickness of human beings, destruction, or contamination of property, overwhelming demand on local response resources, and disruption of organized societal mechanisms

Diversion: A procedure put into effect by a trauma facility to insure appropriate patient care when that facility is unable to provide the level of care demanded by a trauma patient's injuries or when the facility has temporarily exhausted its resources.

Emergency Medical Services: The transportation and medical care provided the critically ill or injured patient prior to arrival at an emergency department and within a medical facility subject to the individual approval of the medical staff and governing board of that facility.

ENA: Emergency Nurses Association

ENPC: Emergency Nurse Pediatric Course developed and sponsored by the ENA which covers the knowledge and skills necessary for the initial nursing assessment and management of pediatric patients in the emergency department.

Essential characteristic: A component of the trauma care facility standards that is required for designation.

Extrication Services: The services provided by the use of specialized equipment for the purpose of gaining access and entry to entrapped patients.

Field Triage: Classification of patients according to medical need at the scene of an injury or onset of an illness.

GCS: Glasgow Coma Scale-A scoring system that defines eye, motor, and verbal responses in the patient with injury to the brain

General (Level III) Facility: Hospital that provides assessment, resuscitation, emergency surgery, and definitive care or stabilization while arranging for transfer to a Level I or Level II facility that can provide further definitive surgical care.

General Surgery Accredited Residency Program: Programs approved by the Accreditation Council for Graduate Medical Education

Hospital criteria: Essential or desirable characteristics that help categorize Level I, II, III, and IV trauma facilities

ICD-9: Ninth Edition of International Classification of Diseases-a standard coding system that includes all injuries and disease processes

ICP: Intracranial pressure, often monitored in patients with severe injuries to the brain

Immediately available to the patient: Services provided by a trauma facility that are in-house 24 hours a day, 7 days a week.

Inclusive Trauma Care System: A trauma care system that incorporates every health care facility in a community in a system in order to provide a continuum of services for all injured persons who require care in an acute facility; in such a system, the injured patient's needs are matched to the appropriate hospital resources.

Infant: Age class from birth to one year old.

In-house: Physically present in the hospital.

Injury: The result of an act that damages, harms, or hurts; unintentional or intentional damage to the body resulting from acute exposure to mechanical, thermal, electrical, or chemical energy or from the absence of such essentials as heat or oxygen (*see* Trauma).

Injury control: Programs designed to teach potential victims how to avoid injuries.

Interfacility transfer: The transfer of a patient from one hospital to another hospital.

ISS: Injury Severity Score—the sum of the squares of the Abbreviated Injury Scale scores of the three most severely injured body regions.

Lead Trauma Facility: A trauma facility that has made an additional commitment to its trauma service region. This commitment, which usually is offered by the highest level of trauma facility in a given trauma service region, includes outreach and increased educational activities. The responsibilities may be shared by trauma facilities.

Major (Level II) Facility: Hospital that provides screening and definitive care of the traumatically injured patient regardless of the severity of injury, but does not conduct a trauma research program or a general surgery residency program.

Mechanism of Injury: The source of forces that produce mechanical deformations and physiologic responses that cause an anatomic lesion or functional change in humans.

Medical control (Direct): Immediate medical direction to prehospital personnel in remote locations provided by a physician or an authorized communications resource person under the direction of a physician.

Medical control (Indirect): The establishment and monitoring of all medical components of an EMS system, including protocols, standing orders, education programs, and the quality and delivery of direct control.

Medical oversight: The assistance given to the Regional Advisory Council (RAC) and/or regional health care entities in system planning by a physician or group of physicians designated by the RAC to provide technical assistance.

Morbidity: The relative incidence of disease.

Mortality: The proportion of deaths to population.

Multidisciplinary trauma review committee: Committee composed of the trauma service director and other physician members of the trauma service that reviews trauma deaths in a system or hospital

Multiple or mass casualty triage: Specialized techniques of triage used when large numbers of injured patients are concentrated in one area.

Office: The Office of EMS and Trauma Systems; the organization within the Department responsible for the enforcement of EMS and Trauma Systems legislation within the State of Arkansas.

On-call: Committed for a specific time period to be available and respond within an agreed amount of time to provide care for a patient in the hospital.

Over-triage: Directing patients to trauma centers when they do not need such specialized care. Over-triage occurs because of incorrect identification of patients as having severe injuries when retrospective analysis indicates minor injuries.

PALS: Pediatric Advanced Life Support Course developed and sponsored by the American Heart Association and the American Academy of Pediatrics-covers the knowledge and skills necessary for the initial management of pediatric emergencies, including trauma

Pediatric Trauma Center: Children's hospital fulfilling the criteria for comprehensive trauma care.

Pediatric Trauma Score: An injury scoring system used in some centers caring for pediatric patients

Pediatric trauma surgeon: Certified pediatric surgeon with a commitment to trauma or certified general surgeon with special training and documented CME relevant to pediatric trauma care

Postgraduate year (PGY): Classification system for residents in postgraduate training-the number indicates the year they are in during the postmedical school residency program; for example, PGY1 is one year after graduation from medical school

Prehospital care provider: An individual or organization certified by the Office to provide out-of-hospital emergency medical services.

Promptly available to the patient: Services provided by a trauma facility that are available to the patient within 30 minutes.

Protocol: A written procedure to ensure standardization of care.

Regional Advisory Council (RAC): The Council formed within a Trauma Service Region that develops and oversees the region's trauma system plan.

Regionalization: The identification of available resources within a given geographic area and coordination of services to meet the needs of a specific group of patients

Rehabilitation: Services that seek to return a trauma patient to the fullest physical, psychologic, social, vocational, and educational level of functioning of which he or she is capable, consistent with physiologic or anatomic impairments and environmental limitations

Research: Clinical or laboratory studies designed to produce new knowledge applicable to the care of injured patients

Response time: Interval between notification and arrival of general surgeon or surgical specialist in the emergency department or operating room

Resuscitation: The phase of trauma or specialty care where emergency life support treatment is provided to sustain vital bodily functions.

RTS: Revised Trauma Score-A prehospital/emergency department scoring system in which numerical values are assigned to differing levels of Glasgow Coma Scale, systolic blood pressure, and respiratory rate

Sensory, Motor, and Circulation (SMC's): Refers to the assessment of the patient's ability to feel and move, and the status of the patient's blood circulation.

State Trauma Registry: A database of information, submitted to the Office by the hospitals, relating to the care of trauma patients as defined in these Rules and Regulations. The information is used to evaluate the quality of care provided.

Transfer agreement: A formal, written agreement between hospitals for the transfer and acceptance of patients. **Note: This is not a substitute for the Emergency Medical Treatment and Labor Act (EMTALA) transfer forms.**

Trauma: A term derived from the Greek for "wound," it refers to any bodily injury (*see* Injury).

Trauma Advisory Council: The body of individuals appointed by the Governor to advise, assists, and make recommendations to the Office concerning the development of the statewide trauma system.

Trauma call roster: The listing of surgeons assigned to provide trauma care, including date of coverage and alternate surgeons

Trauma Care Systems and Planning Act: The law that amended the Public Health Service Act to add Title-XII-Trauma Programs. The purpose of the legislation is to assist state governments in developing, implementing, and improving regional systems of trauma care and to fund research and demonstration projects to improve rural EMS and trauma care (PL-101-590)

Trauma Center (Facility): A specialized hospital facility distinguished by the immediate availability of specialized surgeons, physician specialists, anesthesiologists, nurses, and resuscitation and life support equipment on a 24-hour basis to care for severely injured patients or those at risk for severe injury

Trauma Center Designation: The process by which the Office of EMS & Trauma Systems identifies and selects facilities to care for severely injured patients within a trauma care system

Trauma Coordinator/Trauma Program Manager: A designated individual with responsibility for coordination of all activities on the trauma service and works in collaboration with the trauma service director. The professional requirements for this individual shall be licensure at the Registered Nurse level or higher.

Trauma fellowship: Formal advanced postresidency training in the care of injured patients

Trauma patient: The patient which presents acute bodily injuries secondary to an external force requiring immediate interventions deemed necessary to preserve life and limb. For statistical purposes, the definition will apply to the **traumatically injured patient** that:

Is held for observation for a period of time greater than 8 hours.
Is admitted to the hospital.
Is transferred to another trauma system facility, or
Expires

Trauma prevention programs: Internal institutional and external outreach educational programs designed to increase awareness of methods for prevention and/or avoidance of trauma related injuries

Trauma program: An administrative unit that includes the trauma service and coordinates other trauma related activities; for example, injury prevention, public education, CME activities, etc.

Trauma Registry: The collection and analysis of trauma data from the trauma system.

Trauma Service: A clinical service established by the medical staff that has oversight of and responsibility for the care of the trauma patient.

Trauma Service Director: Physician designated by the institution and medical staff to coordinate trauma care.

Trauma Service Region (TSR): A geographic region of the state approved by the Office to implement a comprehensive trauma care system plan.

Trauma System: An integrated network that ensures that acutely injured patients are expeditiously taken to hospitals appropriate for their level of injury.

Trauma Team: A group of health care professionals organized to provide care to the trauma patient in a coordinated and timely fashion.

Triage: The sorting of patients in terms of priority, treatment, transportation, and destination, so that the patient can be transported to the appropriate hospital based upon established criteria.

TRISS: Trauma Score/Injury Severity Score-the likelihood of patient survival based on a regression equation that includes patient age, ISS, RTS, and the type of injury (blunt or penetrating).

Under-triage: Directing fewer patients to trauma centers than is warranted because of incorrect identification of patients as having minor injuries when retrospective analysis indicates severe injuries.

Words implying the masculine gender may be applied to both males and females.

SECTION II: ADMINISTRATIVE

A. All communications concerning these Rules and Regulations shall be addressed to the Arkansas Department of Health, Office of EMS and Trauma Systems, 4815 West Markham Street, Slot 38, Little Rock, Arkansas 72205-3867.

B. Purpose

The purpose of these Rules and Regulations is to establish the procedures and standards for the implementation of a statewide comprehensive trauma system in order to decrease morbidity and mortality which results from trauma.

SECTION III: PUBLIC INFORMATION AND EDUCATION

A. Purpose

Because trauma is a preventable disease, community information and prevention is an important component of the Arkansas Trauma Care System. The Office shall actively promote and encourage trauma system education and injury prevention throughout Arkansas.

B. Educational Resource Center

The Office shall establish and maintain an Educational Resource Center which will provide information on statewide trauma system components and established injury prevention programs on the local, state, and national level. The Center shall function as a clearinghouse to gather information regarding trauma care continuing education opportunities and make this information available to the trauma system providers.

C. Trauma Facility Standards for Public Education and Injury Prevention

It shall be the responsibility of all designated trauma facilities to implement public education and injury prevention programs in the approved Trauma Service Region (TSR) as outlined in Section VII.G.

SECTION IV: PREHOSPITAL TRIAGE AND TRANSPORT

A. Purpose

Emergency care of the traumatically injured patient is best accomplished using an inclusive, multi-level trauma care systems approach. Triage, transport, and transfer protocols have been developed to ensure that trauma patients will receive prompt and potentially lifesaving treatment.

B. Trauma Systems Prehospital Trauma Treatment Standard

1. Assessment

   Traumatically injured patients will be appropriately assessed using the Prehospital Triage Criteria & Decision Scheme as defined in Section IV.C.

2. Extrication

   Extrication of the traumatically injured patient shall be initiated as needed by the prehospital care provider. (Ref. Emergency Medical Services Rules and Regulations, Section V.C.).

3. Initiate resuscitation

   Basic Life Support interventions (establishment of patent airway, hemorrhage control, spinal immobilization, fracture immobilization, etc.) will be initiated by the prehospital care provider following established local protocols. Advanced life support protocols shall be kept on file with the Office (ref. Emergency Medical Services Rules and Regulations, Section III.C.1).

4. Rapid transport to the appropriate medical facility

   Patient transport will be initiated by the prehospital care provider following established local protocols.

5. Notify medical control at the receiving hospital

   Contact with the receiving hospital will be made as soon as possible. An accurate description of the incident, injuries, current medical interventions based upon established protocols, and patient status will be relayed to the facility. Further management guidance will be requested from the receiving hospital medical control as required during transport.

6. Treatment during transport

   Patient care shall follow established local protocols.

7. Indications to ***NOT*** activate the EMS system

   The Trauma system should not be activated when the following patient conditions occur:

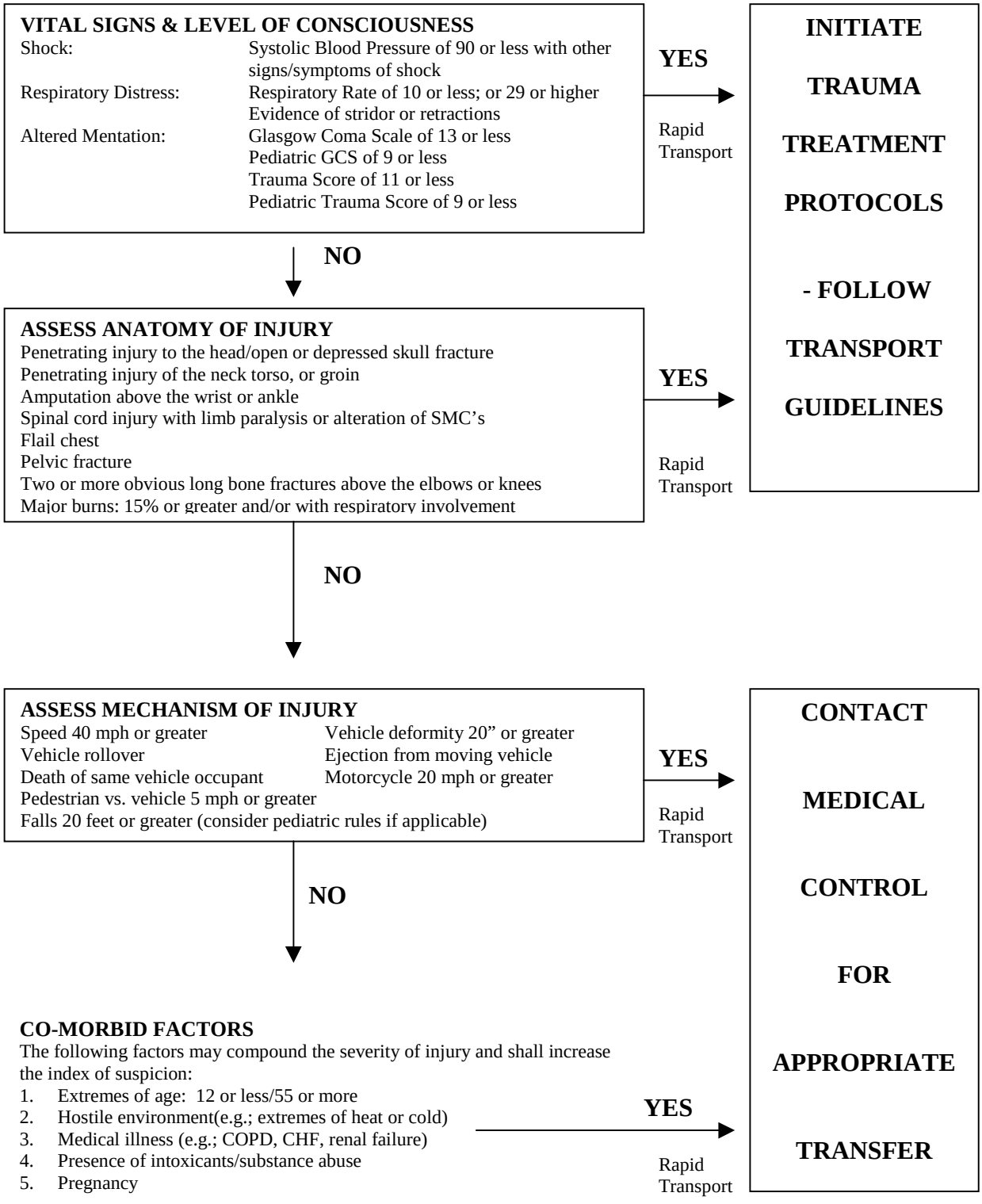
   a. Decomposition

   b. Rigor mortis

   c. Normothermic asystole secondary to trauma (as determined by Advanced Life Support providers only; does not apply to Basic Life Support providers).

   These patients should be transported at the direction of the medical examiner or coroner.

C. Prehospital Triage Criteria & Decision Scheme



D. Trauma Systems Transport Standard

1. Patient meeting trauma criteria

Patients who meet the trauma criteria as outlined in Section IV.C. shall be transported to a Level 1 or Level 2 Facility **unless:**

a. The prehospital care provider is unable to establish or maintain an adequate airway or control excessive hemorrhage; in this case, the patient should be transported to the nearest licensed facility to provide the appropriate care.

b. Scene time and transport time to a Level 1 or Level 2 Facility is greater than 30 minutes; transport the patient to a closer Level 3 Facility.

c. Scene time and transport time to a Level 1, 2, or 3 Facility is greater than 30 minutes; transport the patient to a closer Level 4 Facility.

2. Override of criteria by Medical Control

Medical control may override the transport requirement outlined in Section IV.D.1. under the following conditions:

a. the hospital is unable to meet resource standards as defined for its designated level.

b. multiple patients are involved.

c. The patient needs specialized care and is stable.

SECTION V: TRIAGE REQUIREMENTS FOR TRAUMA FACILITIES

A. Purpose

The role of the level 1 (Comprehensive) and Level 2 (Major) Trauma facilities shall be to provide the highest level of definitive, comprehensive care for the severely injured adult and pediatric patient with complex, multi-system trauma. In the event of the availability of a specialized Pediatric Trauma Center, the Level 1 or Level 2 facilities may elect to arrange for transfer of care to that facility for pediatric patients. Level 1 and Level 2 Trauma facilities should have the capability of providing total patient care for every aspect of injury from prevention through the arrangement of rehabilitative services. The role of the level 3 (General facility is to provide initial evaluation and stabilization, including surgical intervention, of the severely injured adult or pediatric patient. Critically injured patients who require specialty care are transferred to a higher level trauma facility in accordance with established criteria. The role of the level 4 (Basic) facility is to provide resuscitation and stabilization of the severely injured adult or pediatric patient prior to transferring the patient to a higher level trauma facility.

B. Standards for Level 1 (Comprehensive) and Level 2 (Major) Facilities

1. Prehospital (EMS) Radio Report

The trauma facility shall monitor the EMS Communications system at all times. In the event of a trauma patient being transported, the EMS report shall be transmitted by the hospital provider to the Emergency Department of the receiving facility.

2. Assignment of Trauma Score and Activation of the Trauma Protocol

Based upon the information received, the trauma facility triage nurse or other appropriate medical control officer shall assign a trauma score and, where indicated, activate the Trauma Treatment Protocol for that facility as outlined in Section V.C.

3. Trauma Patients Not Meeting the Trauma Triage Criteria

Trauma patients shall undergo appropriate emergency department screening and evaluation as prescribed by local protocol.

C. Triage Standard for Level 1 and 2 Facilities

1. Receive EMS Radio Report

2. Assign trauma score (RTS)

3. Initiate Trauma Alert & Trauma Treatment Protocol if following criteria are met:

- Systolic Blood Pressure of 90 or less with other signs/symptoms of shock
- Respiratory Rate of 10 or less; or 29 or greater
- Glasgow Coma Scale of 13 or less
- Trauma Score of 11 or less
- Pediatric Trauma Score of 9 or less

4. Immediate designated Trauma Team Physician evaluation and early consultation with either a Trauma Surgeon for a high energy event or an appropriate Surgical Subspecialist for isolated injury meeting criteria:

- Penetrating injury to the head/open or depressed skull fracture
- Penetrating injury of the neck, torso, or groin
- Amputation above the wrist or ankle
- Spinal core injury with limb paralysis or alteration of SMC's
- Flail Chest
- Pelvic Fracture
- Two or more obvious long bone fractures above the elbows or knees
- Major burns: 15% or greater and/or with respiratory involvement

5. Notify designated Trauma Team Physician on admission to emergency department and perform complete trauma evaluation and appropriate serial observations if the patient does not meet the above criteria but meets the criteria for a high energy event:

- Speed 40 mph or greater
- Vehicle Rollover
- Death of same vehicle occupant
- Pedestrian vs. vehicle 5 mph or greater
- Falls 20 feet or greater (consider pediatric rules if applicable)
- Vehicle deformity 20" or greater
- Ejection from moving vehicle
- Motorcycle 20 mph or greater

TRAUMA PATIENTS WHO MEET NONE OF THE ABOVE CRITERIA SHOULD UNDERGO APPROPRIATE EMERGENCY DEPARTMENT EVALUATION AND MANAGEMENT.

D. Standards for Level 3 (General) and Level 4 (Basic) facilities

1. Prehospital (EMS) Radio Report

The trauma facility shall monitor the EMS Communications system at all times. In the event of a trauma patient being transported, the EMS report shall be transmitted by the prehospital provider to the Emergency Department of the receiving facility.

2. Assignment of Trauma Score and Activation of the Trauma Protocol

Based upon the information received, the trauma facility triage nurse or other appropriate medical control officer shall assign a trauma score and, where indicated, activate the Trauma Treatment Protocol for that facility as outlined in Section V.E.

3. Trauma Patients Not Meeting the Trauma Triage Criteria

Trauma patients shall undergo appropriate screening and emergency department evaluation, observation, and consideration for discharge or admission.

4. Re-evaluation of Trauma Score Due to Deterioration of Patient Condition

The trauma patient whose condition deteriorates or is found to have significant injuries not detected in the initial evaluation should be reclassified and the Trauma Team activated.

E. Triage standard for Level 3 and 4 Facilities

1. Receive EMS Report
2. Assign Trauma Score
3. Initiate Trauma Alert and Trauma Treatment Protocol if following criteria are met:
   - Systolic Blood Pressure of 90 or less with other signs/symptoms of shock
   - Respiratory Rate of 10 or less; or 29 or greater
   - Glasgow Coma Scale of 13 or less
   - Trauma Score of 11 or less
   - Pediatric Trauma Score of 9 or less
   - Penetrating injury to the head/open or depressed skull fracture
   - Penetrating injury of the neck, torso, or groin
   - Amputation above the wrist or ankle
   - Spinal cord injury with limb paralysis or alteration of SMC's
   - Flail Chest
   - Pelvic Fracture
   - Two or more obvious long bone fractures above the elbows or knees
   - Major burns: 15% or greater and/or with respiratory involvement
4. Apply High Risk Criteria For Consideration of Early Transfer guidelines developed by your facility to identify patients requiring interfacility transfer. A copy of these guidelines shall be kept on file with the Office of EMS & Trauma Systems. To assist the trauma facility in the development of these guidelines, recommendations for early transfer criteria are found in Section V.F.
5. Contact appropriate facility for transfer as soon as possible
6. Perform complete trauma evaluation and appropriate serial observations if the patient does not meet the above criteria but meets the criteria for a high energy event:
   - Speed 40 mph or greater
   - Vehicle Rollover
   - Death of same-vehicle occupant
   - Pedestrian vs. vehicle 5 mph or greater
   - Falls 20 feet or greater (consider pediatric rules if applicable)
   - Vehicle deformity 20" or greater
   - Ejection from moving vehicle
   - Motorcycle 20 mph or greater
7. Consider Co-Morbid Factors
   - Extremes of age: 12 or less/55 or more
   - Pregnancy
   - Hostile environment: (e.g.; extremes of heat or cold)
   - Medical illness or prior history (COPD, CHF, renal failure, cardiac, diabetes, cirrhosis, morbid obesity, etc.)
   - Pregnancy
   - Immunosupressed patients
   - Patients with bleeding disorders or on anticoagulants

PATIENTS WHO DETERIORATE OR ARE FOUND TO HAVE SIGNIFICANT INJURIES SHOULD BE RECLASSIFIED AND THE TRAUMA TEAM ACTIVATED. OTHER PATIENTS SHOULD UNDERGO APPROPRIATE EMERGENCY DEPARTMENT EVALUATION AND OBSERVATION AND CONSIDERATION FOR DISCHARGE OR ADMISSION.

F. Recommendations for High Risk Criteria for the Consideration of Early Transfer

(THESE GUIDELINES ARE NOT INTENDED TO BE HOSPITAL SPECIFIC)

CENTRAL NERVOUS SYSTEM

- Head Injury — Penetrating injury or open fracture (with or without CSF leak)
  Depressed skull fracture
  Glasgow Coma Scale 13 or less or GCS deterioration
  Lateralizing signs
- Spinal Cord Injury — Spinal column injury or major vertebral injury

CHEST

- Major chest wall injury
- Wide mediastinum or other signs suggesting great vessel injury
- Cardiac injury
- Patients who may require prolonged ventilation

PELVIS

- Unstable pelvis ring disruption
- Unstable pelvis fracture with shock or other evidence of continuing hemorrhage
- Open pelvic injury

MAJOR EXTREMITY INJURIES

- Fracture/dislocation with loss of distal pulses
- Open long-bone fractures
- Extremity ischemia

MULTIPLE-SYSTEM INJURY

- Head injury combined with face, chest, abdominal, or pelvic injury
- Burns associated with injuries
- Multiple long-bone fractures
- Injury to more than two body regions

CO-MORBID FACTORS

- Age 55 or greater
- Cardiac or respiratory disease
- Pregnancy
- Age (12 or less)
- Insulin-dependent diabetes, morbid obesity
- Immunosupression

SECONDARY DETERIORATION (LATE SEQUELAE)

- Mechanical ventilation required
- Sepsis
- Single or multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic renal, or coagulation systems.
- Major tissue necrosis

G. Standards for the Referral of Patients to a Qualified Burn Center

1. A trauma patient meeting any one of the following criteria shall be considered a candidate for rapid transfer to a specialized burn center:

a. Second and third degree burns >10% BSA in patients <10 yrs or > 50 yrs.
b. Second and third degree burns >20% BSA in other age groups.
c. Second and third degree burns involving face, hands, feet, genitalia, and perineum, or which involve skin overlying major joints.
d. Third degree burns > 5% BSA
e. High voltage electrical burns including lightning injury
f. Significant chemical burns
g. Inhalation injury
h. Burn injury in patients with preexisting condition that could complicate management, prolong recovery, or affect mortality.
i. Any burn patient in whom concomitant trauma poses an increased risk of morbidity or mortality may be initially treated in a trauma center until stable before appropriate transfer to a burn center.
j. Infants and children with burns who were seen initially in facilities without qualified personnel or proper equipment for burn care should be transferred to a burn center with those capabilities.
k. Burn injury in patients who will require special social and emotional or long-term rehabilitative support, including cases involving suspected abuse and neglect.

H. Standards for the Triage and Transfer of the Pediatric Patient

1. A pediatric patient meeting any one of the following criteria shall be considered a candidate for rapid transfer to a facility capable of providing specialized pediatric care:

a. Hemodynamically stable infants and children with documented visceral injury being considered for observational management with two caveats: Hemodynamic instability mandates immediate operative intervention; nonoperative care is safe only in an environment that provides both close clinical observation by a surgeon experienced in the management of childhood trauma and immediately available operative care.
b. Children in coma for longer than 6 hours
c. Infants and children with injuries requiring complex or extensive reconstruction
d. Infants and children with polysystem trauma requiring organ system support
e. Any infants or children who meet any of the adult transfer criteria as outlined in Section V.F.

I. Standards for Transfers Between Trauma Facilities

1. Establishment of transfer agreements

Trauma facilities shall establish written transfer agreements with other cooperating facilities in advance to expedite the care of the trauma patient. A copy of the transfer agreement(s) shall be kept on file in the Office of EMS and Trauma Systems.

2. Trauma facilities shall develop an interfacility transfer form to be completed and sent with the patient at the time of transfer. The minimum patient data set provided to the receiving facility shall consist of the following data elements:

a. Patient Information: Name, Address, Age, Sex, Weight, Date and Time of Admission, History of Current Injury, Date and Time of Current Injury, Mechanism of Injury.
b. Vital Signs: Minimum of two sets; initial vital signs at time of admittance and vital signs at time of discharge from the referring facility: Blood pressure, pulse rate, respirations, temperature, oxygen saturation, Glasgow Coma Scale score, Trauma Score.
c. Identification and type of EMS transport service: Basic EMS, Intermediate EMS, Paramedic EMS, Helicopter, Fixed Wind, RN/EMS or other applicable type.
d. Diagnosis
e. Treatments/Interventions performed by the referring facility
f. Date and time of discharge from the referring facility
g. Diagnostic studies accompanying patient
h. Records attached
i. Identification of the Referring Facility
j. Identification of the Referring Physician
k. Identification of the Receiving Facility
l. Identification of the Receiving Physician

m. Minimum Patient Data Set for an Interfacility Transfer (SAMPLE FORMAT)

PATIENT INFORMATION

Name:_____

Address_____

Age_____ Sex_____ Weight_____

Date and Time of Admission_____

History of Current Injury_____

_____

_____

_____

Date/Time of Injury_____

Mechanism of Injury_____

_____

VITAL SIGNS

	INITIAL	DISCHARGE
BP	_____	_____
PULSE	_____	_____
RESPIRATION	_____	_____
TEMP	_____	_____
OXY SAT.	_____	_____
GCS SCORE	_____	_____
TRAUMA SCORE	_____	_____

TRANSFERRING SERVICE: _____

☐ **Basic EMS**
☐**Intermed. EMS**
☐**Paramedic EMS**
☐**Helicopter**
☐**Fixed Wing**
☐**RN/EMS**

DIAGNOSIS:_____

PREVIOUS HISTORY:_____

TREATMENTS/INTERVENTIONS:_____

_____

DATE AND TIME OF DISCHARGE:_____

TX FACILITY:_____ TX PHYSICIAN:_____

RCV FACILITY:_____ RCV. PHYSICIAN:_____

DIAGNOSTIC STUDIES ACCOMPANYING PATIENT:

____LABORATORY
____RADIOLOGY STUDIES
____ELECTROCARDIOGRAM
____OTHER_____

RECORDS ATTACHED

_____ EMS PREHOSPITAL CARE RPT.
_____ NURSING RECORDS
_____ PHYSICIAN RECORDS
_____ OTHER

SECTION VI: STANDARDS FOR TRAUMA FACILITY DESIGNATION

A. Purpose

Any hospital that desires authorization to provide trauma care services within the Arkansas Trauma System shall request designation from the **Office.** No hospital may be represented to the public as an Arkansas designated trauma facility unless that hospital holds a certificate of trauma facility designation issued by the Arkansas Department of Health.

B. Trauma Facility Designation Process

1. Application

An application for trauma facility designation shall be made on forms provided by the Department and shall be accompanied by the appropriate non-refundable fee as outlined in Section IX.

2. Site survey

Upon the review and approval by the Office of the application materials submitted in section VI.B.1., an on-site survey of the facility will be scheduled. All costs associated with conducting on-site surveys shall be the responsibility of the applicant. The on-site survey shall be conducted based upon the standards described in Section VII or Section VIII as applicable. The survey team shall consist of members approved by the Office as outlined in Section X. The survey team shall submit a comprehensive report to the Office. The Office shall review the survey findings and issue a decision recommending one of the following options:

a. Full approval at the level designation requested by the applicant.

b. Provisional Approval; Temporary approval issued for one year pending the completion of a second on-site survey or submission of documentation of corrective actions by the facility which focus on the specified deficiencies. At the conclusion of the first Provisional approval, the Office may consider a second Provisional approval for up to one (1) year. At the conclusion of the second Provisional term, if the facility has not met the Department's requirements, the Provisional approval shall be revoked and the facility must reapply for trauma facility designation.

c. Approval at the level designation recommended by the Office based upon the facilities' current capabilities as determined by the Office review of the on-site survey.

d. Approval denied; facility must resubmit new application and fee.

3. Certification of an Approved Trauma Facility

Upon approval by the Office of all application requirements as set forth in Section VI.B.1 & 2, a Certificate of Trauma Facility Designation will be issued identifying the facility as a state-certified provider of trauma care. This certificate shall be in force for a time period not to exceed three years from the date of issue or if provisional, shall be reviewed after one (1) year.

4. Denial of Trauma Facility Designation

A facility's application for designation may be denied for, but not limited to, the following reasons:

a. Failure to comply with these sections and/or Health Facilities Services Rules and Regulations.

b. Willful preparation or filing of false reports or records.

c. Fraud or deceit in obtaining or attempting to obtain designation status.

d. Failure to have appropriate staff or equipment required for designation as described in Section VII or Section VIII as applicable.

e. A documented history of unauthorized disclosure of medical or other confidential information.

f. A documented history of alteration or inappropriate destruction of medical records.

g. A documented history of refusal to render care because of a patient's race, sex, creed, national origin, sexual preference, age, handicap, medical problem, or inability to pay.

5. Reapplication for Designation

Six (6) months after the denial of a facility's application for designation as outlined in Section VI.B.2.d., the facility may reapply for level designation as described in section VI.B.1. & 2.

C. Suspension or Revocation of Designation

1. A trauma facility's level designation may be suspended or revoked for, but not limited to, the following reasons:

   a. Failure to comply with these sections and/or Health Facilities Services Rules and Regulations.

   b. Willful preparation or filing of false reports or records.

   c. Fraud or deceit in obtaining or attempting to obtain designation status.

   d. Failure to submit data to the state trauma registry as described in Section XIII.

   e. Failure to have appropriate staff or equipment required for designation as described in Section VII or Section VIII as applicable.

   f. Unauthorized disclosure of medical or other confidential information.

   g. Alteration or inappropriate destruction of medical records.

   h. Refusal to render care because of a patient's race, sex, creed, national origin, sexual preference, age, handicap, medical problem, or inability to pay.

2. Occasional Failure to Meet Standards

   Occasional failure of a hospital or facility to meet its obligations shall not be grounds for denial, suspension, or revocation by the Office if the circumstances under which the failure occurred:

   a. Do not reflect an overall deterioration in quality of and commitment to trauma care.

   b. Are corrected within a reasonable time frame by the facility as determined by the Office.

3. Complaints

Upon receipt of a complaint describing an alleged violation of these Sections, the Office shall:

a. Initiate a review of the complaint

b. Notify the trauma facility of the complaint

c. Develop a written report of the review

d. Notify the trauma facility of the results of the review

4. Notification of Action

If the Office proposes to suspend or revoke a designation, the Office shall notify the facility by registered or certified mail at the last address shown in the Office records. The notice shall state the alleged facts that warrant the action and state that the hospital or facility has an opportunity to request a hearing in accordance with the Department's formal hearing procedures.

a. The facility shall request a hearing within fifteen (15) postmark days after the date of the suspension or revocation notice. This request shall be in writing and submitted to the Office Director. If a hearing is requested, the hearing shall be held in accordance with the Department hearing procedures.

b. If the hospital or facility does not request a hearing in writing, after being sent the notice of opportunity for hearing, it is deemed to have waived the opportunity for a hearing and the suspension or revocation decision shall stand.

SECTION VII: TRAUMA FACILITY RESOURCE STANDARDS

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics	LEVELS IV	III	II	I
A. HOSPITAL ORGANIZATION				
1. Trauma Service	**D**	**D**	**D**	**E**
a. Specified delineation of privileges for the Trauma Service must occur by the medical staff Credentialing Committee				
b. Trauma Team: Organized and directed by a general surgeon expert in and committed to the care of the injured; all patient with multiple system or major injury must be initially evaluated by the trauma team, and the surgeon who shall be responsible for overall care of a patient (the team leader) identified. A team approach is required for optimal care of patients with multiple-system injuries.				
2. Emergency Department	**E**	**E**	**E**	**E**
The Emergency Department staffing shall ensure immediate and appropriate care for the trauma patient. The Emergency Department physician shall function as a designated member of the trauma team, and the relationship between Emergency Department physicians and other participants of the trauma team must be established on a local level, consistent with resources but adhering to these standards and ensuring optimal care.				
3. Surgical Specialty Capability Availability	**D**	**E**	**E**	**E**
a. General Surgery Board Certified (may be a surgeon who is a graduate of an A.C.G.M.E. approved residency and who is less than five years out of training. If the surgeon fails to obtain board certification within five years, s/he is no longer eligible, even though s/he has obtained ATLS course completion). Alternatives to board certification may be applied as defined in Section I, Definitions: "Alternate Criteria."				
1. Full, unrestricted trauma surgery privileges	**D**	**E**	**E**	**E**
2. ATLS* ***Initial ATLS certification followed by either ATLS reverification or 17 hours of trauma-related AMA CME I education every four years.**	**E**	**E**	**E**	**E**
3. On-call and promptly available (within 30 minutes)		**E**		
4. On-call and promptly available to the patient upon activation of the trauma protocol.			**E**	
5. In-house and immediately available to the patient on arrival in the Emergency Department (assumes 5-minute prehospital notification). A PGY 4 or PGY 5 may be used to fulfill this requirement.				**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics	IV	III	II	I
b. Neurologic surgery				
1. Full, unrestricted neurosurgery privileges. On-call and promptly available.		**D**	**E**	**E**
2. Physician with special competence, as judged by the Chief of Neurosurgery, in the care of patients with neural trauma, and who is capable of initiating measures directed toward stabilizing the patient and initiating diagnostic procedures. In-house and immediately available.			**E**	**E**
c. Cardiac surgery (on-call and promptly available)			**E**	**E**
d. Microsurgery capabilities (promptly available)			**D**	**E**
e. Obstetric/Gynecological Surgery (on-call and promptly available)			**E**	**E**
f. Hand Surgery (on-call and promptly available)			**D**	**E**
g. Ophthalmic surgery (on-call and promptly available)		**D**	**E**	**E**
h. Oral, Otorhinolaryngologic, **OR** Plastic/Maxillofacial Surgery (on-call and promptly available).		**D**	**E**	**E**
i. Orthopedic Surgery (on-call and promptly available)	**D**	**D**	**E**	**E**
j. Pediatric Surgery capabilities (on-call and promptly available)			**E**	**E**
k. Thoracic Surgery (on-call and promptly available)		**D**	**E**	**E**
l. Urologic surgery (on-call and promptly available)		**D**	**E**	**E**
4. Non-Surgical Specialty Capability Availability				
a. Anesthesiology				
1. Anesthesiology (full, unrestricted anesthesiology privileges)	**D**	**D**	**E**	**E**
ATLS* and ACLS ***Initial ATLS certification followed by either ATLS reverification or 17 hours of trauma-related AMA CME I education every four years.**	**D**	**D**	**D**	**D**
2. Certified Registered Nurse Anesthetist (current national certification essential)				
ACLS and trauma life support course	**D**	**D**	**D**	**D**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics	IV	III	II	I
3. Anesthesiologist: In-house and immediately available to the patient upon arrival in the Emergency department (assumes fifteen-minute prehospital notification). * *A PGY4 or higher resident in anesthesiology may be used to fill this requirement with the approval of the chief of Anesthesiology				**E**
4. Anesthesiologist: On-call and promptly available to the patient upon arrival in the Emergency Department (assumes fifteen-minute prehospital notification).			**E**	
5. Anesthesiologist **OR** Certified Registered Nurse Anesthetist: On-call and promptly available.	**D**	**E**		
b. Cardiology (on-call and promptly available)		**D**	**E**	**E**
c. Chest Medicine			**D**	**E**
d. Gastroenterology			**D**	**E**
e. Hematology		**D**	**E**	**E**
f. Infectious Disease			**D**	**E**
g. Internal Medicine		**E**	**E**	**E**
h. Nephrology		**D**	**E**	**E**
i. Neuroradiology				**D**
j. Pathology		**D**	**E**	**E**
k. Pediatrics (on-call and promptly available)		**D**	**E**	**E**
l. Psychiatry			**D**	**E**
m. Radiology (on-call and promptly available)	**D**	**D**	**E**	**E**
B. SPECIAL FACILITIES/RESOURCES/CAPABILITIES				
1. Emergency Department				
a. Personnel				
1. Designated Physician Director	**D**	**E**	**E**	**E**
2. Emergency Physician				
a. Full-time emergency medicine practitioner with special competence in the care of the critically injured patient.	**D**	**D**	**E**	**E**
b. Physicians who are qualified and experienced in caring for patients with traumatic injuries and who can initiate resuscitative measures.	**E**	**E**		

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics	IV	III	II	I
c. ATLS* ***Initial ATLS certification followed by either ATLS reverification or 17 hours of trauma-related AMA CME I education every four years.**	**E**	**E**	**E**	**E**
d. In-house and immediately available to the patient upon arrival in the emergency department.	**D**	**E**	**E**	**E**
e. On-call and promptly available.	**E**			
3. Emergency Department Registered Nurse				
a. ACLS/PALS/ENPC (as appropriate)	**E**	**E**	**E**	**E**
b. Initial sixteen-hour Health Department approved Trauma Life Support course followed by either recertification or 16 hours of trauma-related CEU's every four years.	**E**	**E**	**E**	**E**
c. In the Emergency Department and immediately available.	**D**	**E**	**E**	**E**
d. In-house and immediately available.	**E**			
b. Equipment for resuscitation and to provide life support for the critically or seriously injured shall include but not be limited to:				
1. Airway control and ventilation equipment including laryngoscope and endotracheal tubes of all sizes, valve-mask resuscitator, sources of oxygen, pulse oximeter, CO_2 monitoring, mechanical ventilator.	**E**	**E**	**E**	**E**
2. Suction devices	**E**	**E**	**E**	**E**
3. Electrocardiograph-oscilloscope-defibrillator	**E**	**E**	**E**	**E**
4. Apparatus to establish central venous pressure monitoring	**E**	**E**	**E**	**E**
5. Standard IV fluids & administration devices, including IV catheters.	**E**	**E**	**E**	**E**
6. Intravenous fluid and blood warmers	**E**	**E**	**E**	**E**
7. Sterile surgical sets for standard ED procedures	**E**	**E**	**E**	**E**
8. Gastric lavage equipment	**E**	**E**	**E**	**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics				IV	III	II	I
	9.	Drugs and supplies necessary for emergency care		**E**	**E**	**E**	**E**
	10.	a.	X-ray capability 24 hours coverage by in-house technician	**D**	**D**	**E**	**E**
		b.	Technician on-call and promptly available to patient upon arrival in the emergency department.	**E**	**E**		
	11.	Two-way radio linked with vehicles of the prehospital EMS system.		**E**	**E**	**E**	**E**
	12.	Skeletal Traction device for spinal injuries (spinal or backboard immobilization devices may be used as an alternative).		**E**	**E**	**E**	**E**
	13.	Special equipment needed for pediatric patients, readily available. (ref. ACEP Policy Statement, April 1994, Pediatric Equipment Guidelines).		**E**	**E**	**E**	**E**
2.	**Intensive Care Unit (ICU) for Trauma Patients (ICU's may be separate specialty units).**						
a.	Designated Medical Director					**E**	**E**
b.	Physician on duty in ICU 24 hours a day or immediately available				**D**	**E**	**E**
c.	Nurse-patient minimum **average** ratio of 1:2 on shift for trauma patients				**E**	**E**	**E**
d.	Immediate access to clinical laboratory services.				**E**	**E**	**E**
e.	Equipment						
	1.	Airway control and ventilation devices			**E**	**E**	**E**
	2.	Oxygen source with concentration controls			**E**	**E**	**E**
	3.	Cardiac emergency cart			**E**	**E**	**E**
	4.	Temporary transvenous pacemaker			**E**	**E**	**E**
	5.	Electrocardiograph-oscilloscope-defibrillator			**E**	**E**	**E**
	6.	Cardiac output monitoring			**D**	**E**	**E**
	7.	Electronic pressure monitoring			**D**	**E**	**E**
	8.	Mechanical ventilator-respirators			**E**	**E**	**E**
	9.	Patient weighing devices			**E**	**E**	**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics		IV	III	II	I
	10. Pulmonary function measuring devices		**E**	**E**	**E**
	11. Temperature control devices		**E**	**E**	**E**
	12. Drugs, intravenous fluids and supplies		**E**	**E**	**E**
	13. Intracranial pressure monitoring devices		**D**	**E**	**E**
3.	**Postanesthetic Recovery Room (PAR); (surgical intensive care unit is acceptable).**				
a.	Registered nurses and other essential personnel 24 hours a day	**D**	**E**	**E**	**E**
b.	Appropriate monitoring and resuscitation equipment	**D**	**E**	**E**	**E**
4.	**Acute Hemodialysis Capability (or transfer agreement)**		**D**	**D**	**E**
5.	**Organized Burn Care**	**E**	**E**	**E**	**E**
a.	Physician-directed Burn Center Unit staffed by nursing personnel trained in burn care and equipped properly for the care of the extensively burned patient				
	OR				
b.	Transfer agreement with nearby burn center or hospital with a burn unit.				
6.	**Acute Spinal Cord Injury**	**E**	**E**	**E**	**E**
	Management Capability				
a.	In circumstances where a designated spinal cord injury rehabilitation center exists in the region, early transfer should be considered; transfer agreements should be in effect.				
b.	In circumstances where a head injury center exists in the region, transfer should be considered in selected patients; transfer agreements should be in effect.				
7.	**Radiological Special Capabilities**				
a.	Comprehensive range of angiography services		**D**	**E**	**E**
b.	Sonography		**D**	**E**	**E**
c.	Nuclear scanning			**D**	**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics			IV	III	II	I
	d.	In-house computerized tomography			**E**	**E**
	e.	In-house radiologic technician			**E**	**E**
	f.	Technician on-call and promptly available		**E**		
	8.	**Rehabilitation Medicine**	**E**	**E**	**E**	**E**
	a.	Physician-directed Rehabilitation service staffed by nursing personnel trained in rehabilitation care and equipped properly for the care of the critically injured patient.				
		OR				
	b.	Transfer agreement when medically feasible to a nearby rehabilitation service.				
	9.	**Pediatric Service**		**D**	**E**	**E**
		Nursing personnel caring for pediatric patients are properly trained and equipped.				
C.		**OPERATING SUITE SPECIAL REQUIREMENTS**				
		Equipment-Instrumentation				
	1.	**Operating Room adequately staffed and equipped for trauma care (promptly available).**	**D**	**E**		
		Immediately available to the patient upon arrival in the Operating Room or when requested by surgeon (may be satisfied by one RN in-house and immediately available to the Operating Suite with the remainder of the crew on-call and promptly available).			**E**	
		In-house staff and Operating Room immediately available to patient upon arrival in the Emergency Department (assumes five minute prehospital notification).				**E**
	2.	**Cardiopulmonary bypass capability**			**E**	**E**
	3.	**Operating Microscope**			**D**	**E**
	4.	**Thermal control equipment**				
	a.	for the patient	**E**	**E**	**E**	**E**
	b.	for blood	**E**	**E**	**E**	**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics			IV	III	II	I
	5.	**X-Ray capability**	**E**	**E**	**E**	**E**
	6.	**Endoscopes**	**D**	**E**	**E**	**E**
	7.	**Craniotome**	**D**	**D**	**E**	**E**
	8.	**Monitoring equipment**	**E**	**E**	**E**	**E**
D.	**CLINICAL LABORATORY SERVICES AVAILABLE 24 HOURS A DAY**					
	1.	**Standard analyses of blood, urine, and other body fluids**	**E**	**E**	**E**	**E**
	2.	**Blood typing and cross-matching**	**E**	**E**	**E**	**E**
	3.	**Coagulation studies**	**E**	**E**	**E**	**E**
	4.	**Comprehensive blood bank or access to a community central blood bank and adequate hospital storage facilities**	**E**	**E**	**E**	**E**
	5.	**Blood gases and pH determination**	**E**	**E**	**E**	**E**
	6.	**Serum and urine osmolality**	**D**	**D**	**E**	**E**
	7.	**Microbiology**	**D**	**E**	**E**	**E**
	8.	**Serum alcohol determination**	**D**	**E**	**E**	**E**
	9.	**Drug screening**	**D**	**E**	**E**	**E**
E.	**QUALITY ASSURANCE**					
	1.	**Organized Quality Assurance program**	**E**	**E**	**E**	**E**
	2.	**Special audit for all trauma deaths and other specified cases**	**E**	**E**	**E**	**E**
	3.	**Trauma conference; multi-disciplinary** Regular and periodic multi-disciplinary trauma conferences that include all members of the trauma team. This conference shall be for the purpose of quality assurance through critiques of individual cases.	**D**	**E**	**E**	**E**
	4.	**Medical nursing audit, utilization review, tissue review**	**E**	**E**	**E**	**E**

The following table shows levels of categorization and their (E)ssential or (D) esirable characteristics			IV	III	II	I
	5.	**Trauma Registry review** Documentation of severity of injury and outcome by trauma score, age, injury severity score, TRISS, survival, length of stay, ICU length of stay, with monthly review of statistics. Participation in the Office of EMS & Trauma Systems Trauma Registry and Quality Assurance activities as prescribed in the area plan. Designated Trauma Registry Coordinator	**E**	**E**	**E**	**E**
	6.	**Review of prehospital and regional trauma systems**	**D**	**D**	**D**	**D**
F.	**OUTREACH PROGRAM** Telephone and on-site consultations with physicians of the community and outlying areas.		**D**	**D**	**E**	**E**
G.	**PUBLIC EDUCATION** Injury prevention in the home and industry, and on the highway and athletic fields; standard first aid; problems confronting public, medical profession, and hospitals regarding optimal care for the injured.		**D**	**D**	**E**	**E**
H.	**TRAUMA RESEARCH PROGRAM**				**D**	**E**
I.	**TRAINING PROGRAM**					
	1.	**Formal continuing education program provided by the hospital for:**				
	a.	Staff physicians	**D**	**D**	**E**	**E**
	b.	Nurses	**D**	**E**	**E**	**E**
	c.	Allied health personnel	**D**	**D**	**E**	**E**
	d.	Community physicians	**D**	**D**	**E**	**E**
	e.	Prehospital personnel	**D**	**D**	**E**	**E**
	2.	**Accredited general surgery residency program**				**E**

SECTION VIII: PEDIATRIC TRAUMA FACILITY STANDARDS

A. Purpose

The highest level of pediatric trauma care is provided in a Pediatric Trauma Resource Facility. This facility shall be capable of providing comprehensive care for all injured infants and children, particularly the most severely injured in a given region. When no pediatric facility is available, infants and children with multisystem injuries can be treated in an adult trauma facility that has demonstrated a significant commitment to pediatric care as determined by the criteria outlined in Section VIII.B.

B. Standards for Pediatric Trauma Facility Designation as a Pediatric Trauma Regional Resource Facility or an Adult Trauma Facility with Pediatric Commitment:

PEDIATRIC TRAUMA REGIONAL RESOURCE FACILITY		ADULT TRAUMA FACILITY WITH PEDIATRIC COMMITMENT
A pediatric surgeon credentialed in trauma care will be immediately available and present in the OR for any and all operative procedures. A general surgical resident at a minimum PGY4 level may initiate resuscitative care until the attending pediatric surgeon arrives.	Pediatric Surgeon	A pediatric surgeon must be promptly available and present in the ED at time of arrival of the patient, and will be available to care for pediatric trauma patients in the ICU. The adult trauma surgeon must have special interest in and commitment to care of the injured child.
	General Surgeon	E
Children's hospital or general hospital with a separate pediatric department.	Hospital	General hospital with an organized pediatric service.
Pediatric emergency department with appropriate personnel, equipment, and facilities.	Emergency Department	Designated pediatric area in an emergency department staffed with pediatric trauma personnel and appropriate equipment.
Pediatric ICU with pediatric surgery and other surgical medical and nursing personnel and equipment needed to care for the injured child.	ICU	Pediatric ICU with appropriately trained personnel and equipment.
Pediatric trauma service organized and run by a pediatric surgeon.	Trauma Service	Pediatric trauma service administered by the pediatric surgeon and run by his/her designee.
1. Pediatric Surgeon 2. Pediatric Orthopedics 3. Pediatric Neurosurgeon 4. Pediatric Anesthesiologist 5. Pediatric Intensivist 6. Pediatric Emergency Physician 7. Pediatric Radiologists 8. Other Pediatric Surgical Specialists 9. Other Medical Pediatric Specialists 10. Pediatric Trauma Nurse Coordinator 11. Pediatric Trauma Nurse	Trauma Team	1. Pediatric Surgeon 2. General Surgeon 3. Orthopedics 4. Neurosurgeon 5. Surgical Critical Care Specialist 6. Emergency Physicians 7. Radiologists 8. Pediatricians 9. Trauma Nurse coordinator 10. Pediatric-trained Trauma Nurses

E	Research	D
E	Injury Prevention Program	D
E	Pediatric Trauma Service	E
E	Psychosocial Services	E
E	Rehabilitation	E
E	Emergency Department	E
E	Pediatric Intensive Care	E
E	24 hour a day immediate Operating Room availability With in-house anesthesia and nursing personnel	E
E	Trauma Registry	E

SECTION IX: FEES

A. Purpose

The Department shall charge a non-refundable application fee for a facility to be designated as a trauma facility.

1. Comprehensive (Level 1) and Major (Level 2) Facilities

The fee shall be no more than $3.00 per licensed bed with an upper limit of $3,000.00 and a lower limit of $100.00.

2. General (Level 3) Facility

The fee shall be no more than $2.00 per licensed bed with an upper limit of $2,000.00 and a lower limit of $100.00.

3. Basic (Level 4) Facility

The fee shall be no more than $1.00 per licensed bed with an upper limit of $1,000.00 and a lower limit of $100.00.

SECTION X: COMPOSITION OF THE TRAUMA FACILITY SITE SURVEY TEAM

A. Purpose

As part of the trauma facility designation process, an on-site survey of the prospective trauma facility shall be conducted to evaluate the quality of the applicant's compliance with the standards outlined in Section VII or Section VIII.

1. The survey team for a Comprehensive (Level 1), Major (Level 2), General (Level 3), or Pediatric Specialty Trauma Facility shall be multidisciplinary and include at a minimum:

a. General surgeon (Pediatric surgeon for Pediatric Specialty Facility)

b. Emergency physician (Pediatric emergency physician for Pediatric Specialty Facility)

c. Trauma nurse

d. Office representative

2. The survey team for a Level Basic (Level 4) trauma facility shall include at a minimum:

   a. Trauma nurse OR Licensed Emergency Physician

   b. Office representative

3. All team members with the exception of the Office representative shall be active in the management of trauma patients.

4. Additional team members may be assigned at the discretion of the Office.

5. The survey team shall evaluate the quality of each applicant's compliance with the standards set forth in Section VII or VIII by:

   a. Reviewing medical records, staff rosters and schedules, quality management committee meeting minutes, and other documents relevant to trauma care.

   b. Reviewing equipment and the physical plant

   c. Conducting interviews with hospital personnel

6. Findings of the survey team shall be forwarded to the Office within 90 days.

SECTION XI: TRAUMA SERVICE REGIONS (TSR's)

A. Purpose

The Office shall approve the designation of Trauma Service Regions (TSR's).

B. Standards for establishing Trauma Service Regions

1. Trauma Service Regions (TSR's) shall be established for descriptive and planning purposes and not for the purpose of restricting patient referral

2. The state shall be geographically divided into Trauma service Regions as approved by the Office. Regions of the state wishing to form a TSR shall submit a written plan which adheres to the following criteria:

   a. A TSR must contain at least a lead General (Level III) trauma facility.

b. All TSR's shall be multi-county with no fewer than three counties.

c. Counties may be reassigned to areas subdivided as the trauma system demographics change.

d. All TSR's shall establish a Regional Advisory Council (RAC) as outlined in Section XI.C. The RAC shall submit a Trauma Service Region system plan to the Office, which includes the organizational structure of the RAC and the recognized components of a Trauma Service Region as outlined in Section XI.D.

C. Regional Advisory Councils

1. All participating health care entities should have representation on the RAC.

2. Membership status for hospitals for the first six months shall be provisional.

3. Continuing or renewed membership status for hospitals will be dependent upon a commitment to trauma care, as demonstrated by trauma facility designation or involvement in the designation process as described in Section VI.

4. The Office shall recognize only one official RAC for a Trauma Service Region.

5. The RAC is a voluntary entity that functions without the expectation of state funding.

6. The RAC shall develop and oversee a TSR system plan based on standard guidelines for comprehensive system development as outlined in Section XI.D. The system plan is subject to approval by the Office.

7. Each RAC shall elect a representative to serve as ex-officio to the Trauma Advisory Council to update and advise the Council regarding regional concerns.

D. Components of a designated Trauma Service Region

1. All counties within the TSR should be included unless a specific county, or portion thereof, has been named within an adjacent system.

2. All health care entities and interested specialty centers shall be given an opportunity to participate in the planning process.

3. The following points shall be addressed in the Trauma Service Region system plan:

   a. Access to the system
   b. Communications
   c. Medical oversight
   d. Prehospital triage criteria
   e. Diversion policies
   f. Bypass protocols
   g. Regional medical control
   h. Facility triage criteria
   i. Inter-facility transfers
   j. Planning for the designation of trauma facilities, including the identification of the lead facility(ies)
   k. Identification of medical rehabilitation facilities, including capabilities and transfer procedures
   l. A quality management program that the facility may use to evaluate its own outcomes
   m. A quality management program that uses regional aggregate information provided by the Office to evaluate system performance.
   n. Confidentiality

4. Office approval of the completed plan shall qualify health care entities participating in the system to receive state funding for trauma care when funding is made available.

5. Annually, on a form provided by the Office, the RAC shall file a report with the Office that describes progress toward system development and includes evidence that members of the RAC are currently involved in trauma care.

SECTION XII: REHABILITATION FACILITIES

A. Purpose

A complete trauma system must include early integration of rehabilitation services into all phases of acute and primary care. Trauma system hospitals shall demonstrate that rehabilitation services are initiated at the earliest possible point after trauma patient admission.

B. Capabilities for trauma rehabilitation in each Trauma service Region (TSR) and transfer procedures to other rehabilitation facilities shall be described in the TSR system plan. Rehabilitation resources for burns, pediatrics, neuro-trauma and extended care shall be included.

C. Rehabilitation facilities participating in the Trauma Service Region (TSR) shall submit data to the State Trauma Registry in a format approved by the Office.

SECTION XIII. STATE TRAUMA REGISTRY

A. Purpose

The Office shall develop and maintain a statewide trauma data collection and evaluation system (ref. Act 559, The Trauma System Act, Section 6.a).

B. Trauma facility data collection and analysis

1. Each designated trauma facility shall collect and submit to the Office for analysis, a standard data set developed by the Office.

2. Data shall be submitted monthly in a format approved by the Office.

3. The Office shall provide annual summary data to the trauma facilities.

4. Individual records and reports made pursuant to these Rules and Regulations shall be held confidential within the hospital and Office and shall not be made available to the public (ref. Act 559, The Trauma System Act, Section 6.c).

SECTION XIV: SEVERABILITY

If any provision of these Rules and Regulations, or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of these Rules and Regulations which can give effect without the invalid provisions or applications, and to this end the provisions hereto are declared to be severable.

SECTION XV: REPEAL

All Regulations and parts of Regulations in conflict herewith are hereby repealed.

CERTIFICATION

This will certify that the foregoing Rules and Regulations for Trauma Systems were adopted by the Arkansas Board of Health at a regular session of the Board held in Little Rock, Arkansas on the _____day of _____, 2002.

_____

Fay Boozman, M.D., Secretary
Arkansas Board of Health

The foregoing Rules and Regulations, copy having been filed in my office, are hereby approved on this _____ day of _____, _____.

_____

Mike Huckabee
Governor